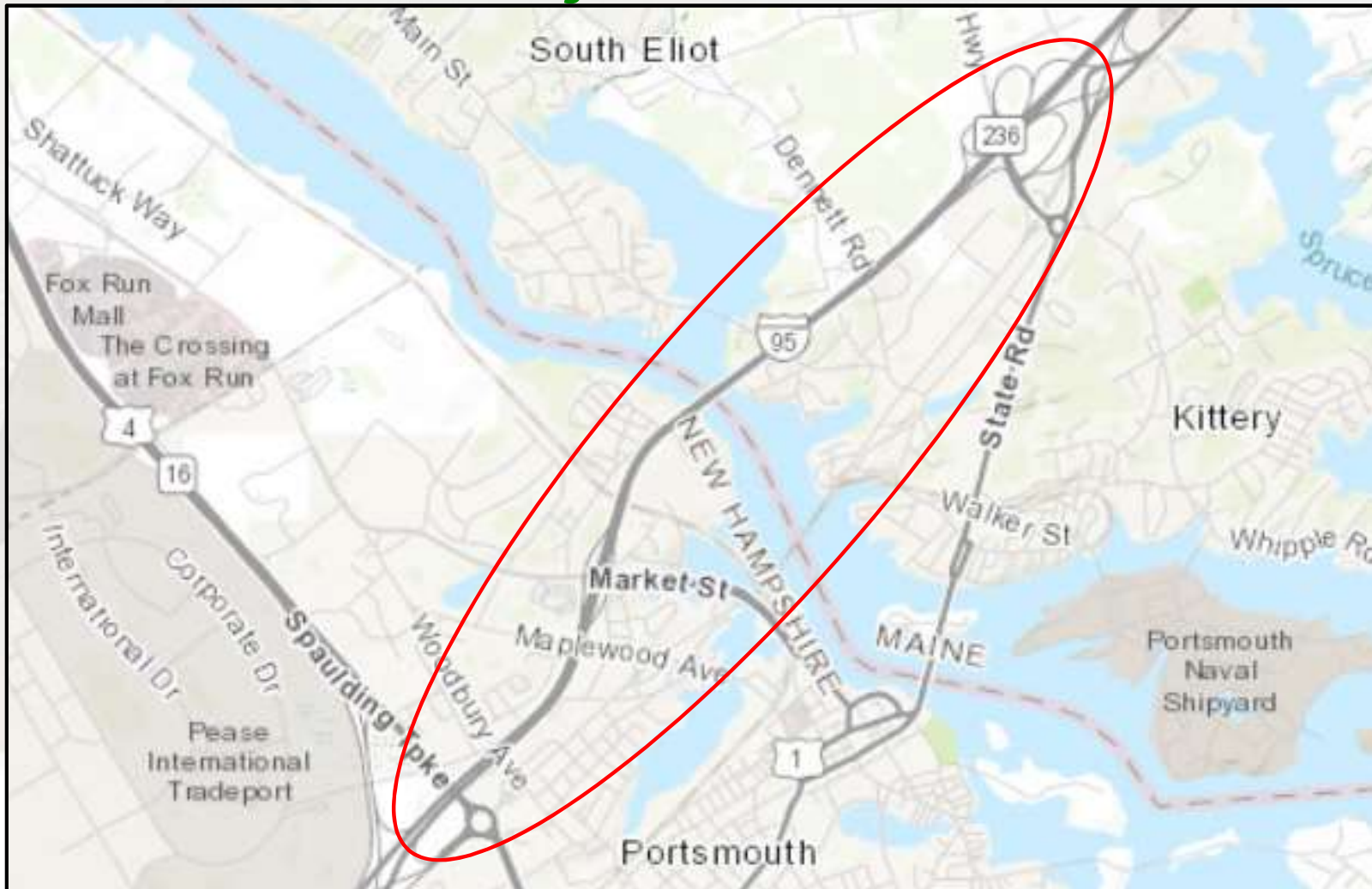


PORTSMOUTH – YORK 16189B High Level Bridge ITS

Public Informational Meeting
March 24, 2021



Project Location



Project Location



Current Bridge Rehabilitation Background

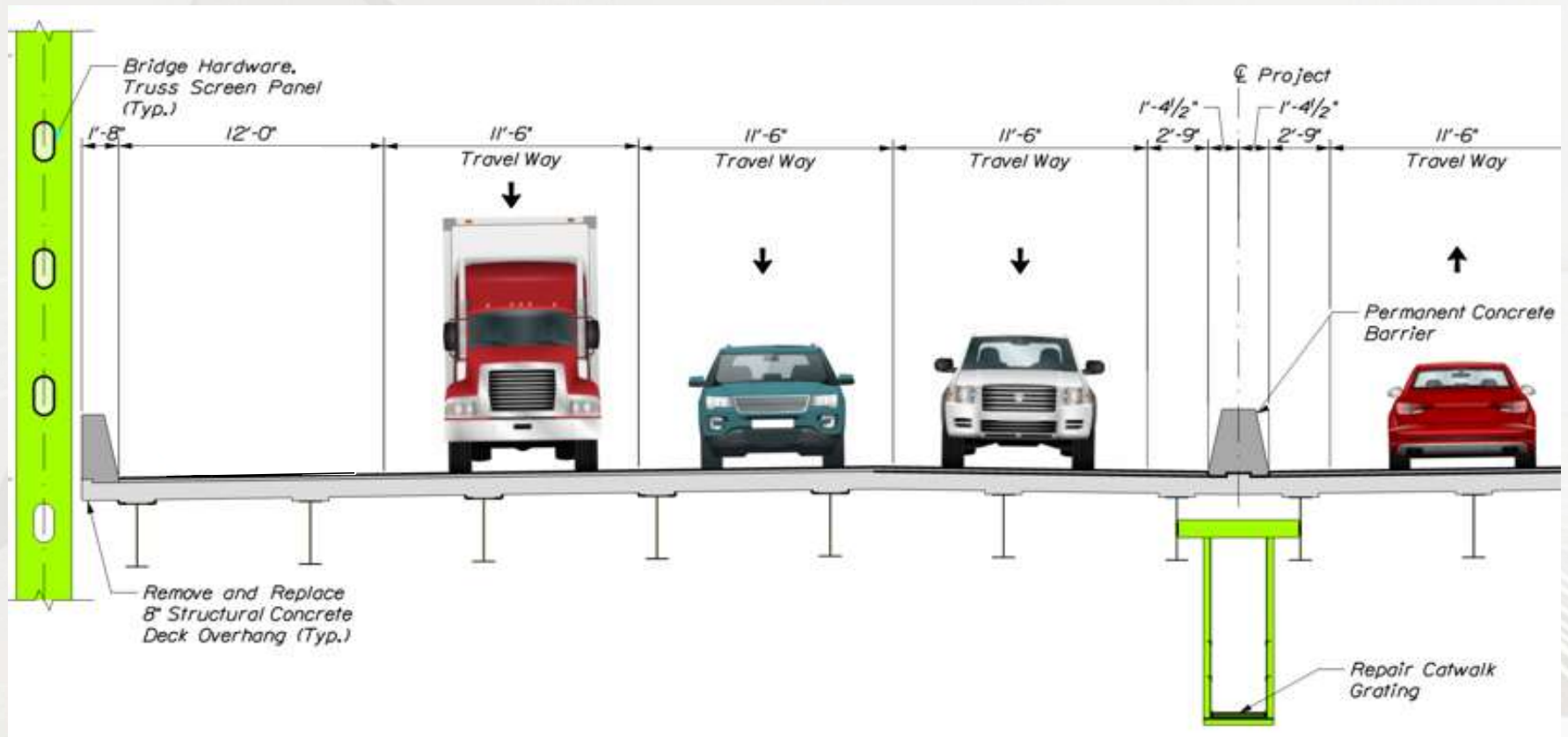
The HLB is currently undergoing a Rehabilitation Project, administered by MaineDOT. Improvements include:

- Bridge deck and substructure repairs
- Joint replacement
- Outside & Median barrier replacement
- Bridge drainage replacement
- Electrical system upgrade
- Maine roadway approach work to Exit 3 NB
- Repaving the Bridge and surrounding approaches

Bridge Rehabilitation Schedule

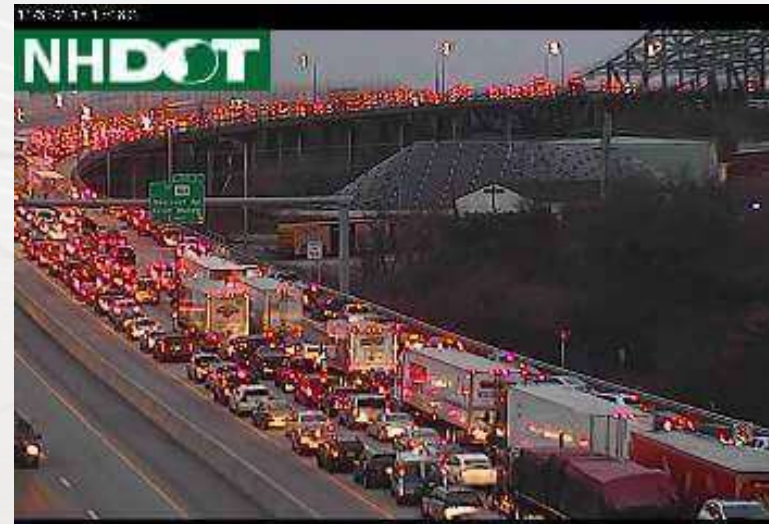
- Currently completing Median work which is the last major phase
- Expected to be Substantially Complete by October 1, 2021
- Exit 1 SB and NB should open by October 1, 2021
- Various lane closures will still be in use until November of 2021
- Final Paving and Striping should be done by May of 2022

Completed Layout for Rehabilitation Project



Congestion Background

- The 2018 traffic volume was 82,000 vehicles per day
- Holiday weekends and Summer Fridays experience about 120,000
- Next 20 Years, expecting a 1.2% annual growth rate
- The High Level Bridge can accommodate 4,500 vehicles per hour per direction
- During peak times traffic volumes exceed 5,000 vehicles per hour per direction



High Level Bridge ITS Project Goals

- Reduce Congestion
- Improve Safety
- Enhance Mobility
- Utilize innovative transportation solutions of the future
- Without expanding the existing footprint of the roadway
- Employ technology via various communication methods

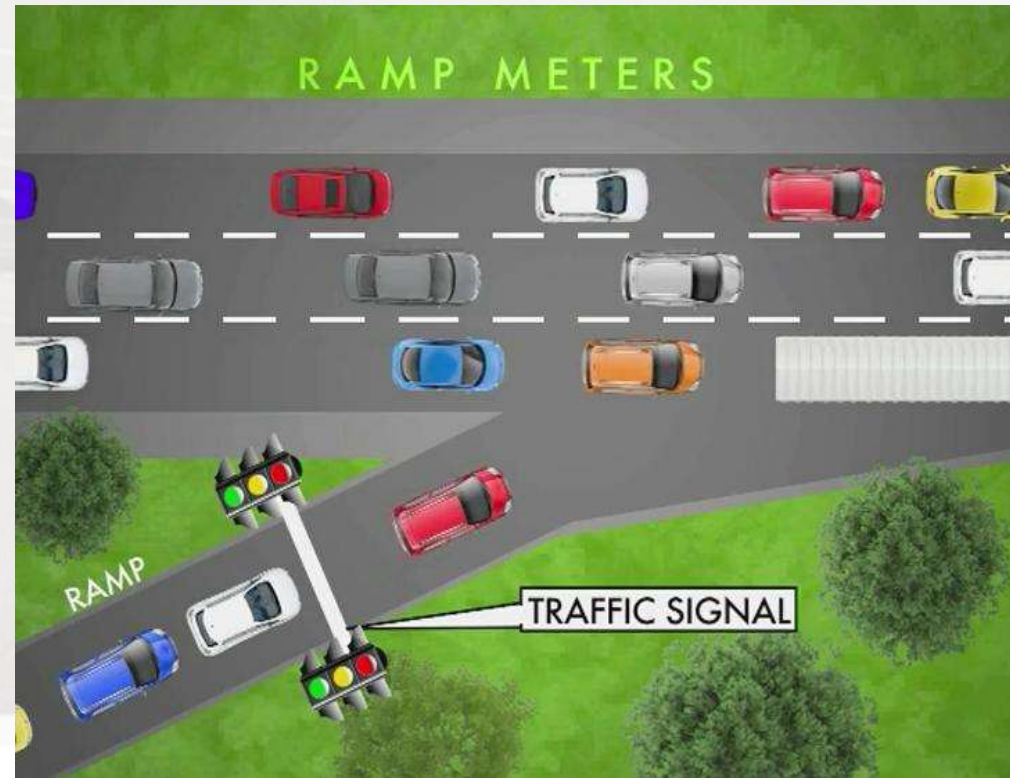
Alternatives Considered with Feasibility Study

- Widen the Existing HLB and Approaches
- Build a new Parallel Bridge
- Establish Reversible Lanes on the HLB
- Restricting Truck Traffic on the Bridge
- Transportation Demand Management (TDM) Strategies
- Enhanced Public Transit/Passenger Rail
- Ramp Metering
- Dynamic Part-time Shoulder Use

Alternatives Advanced for Modeling



Dynamic Part Time Shoulder Use



Ramp Metering

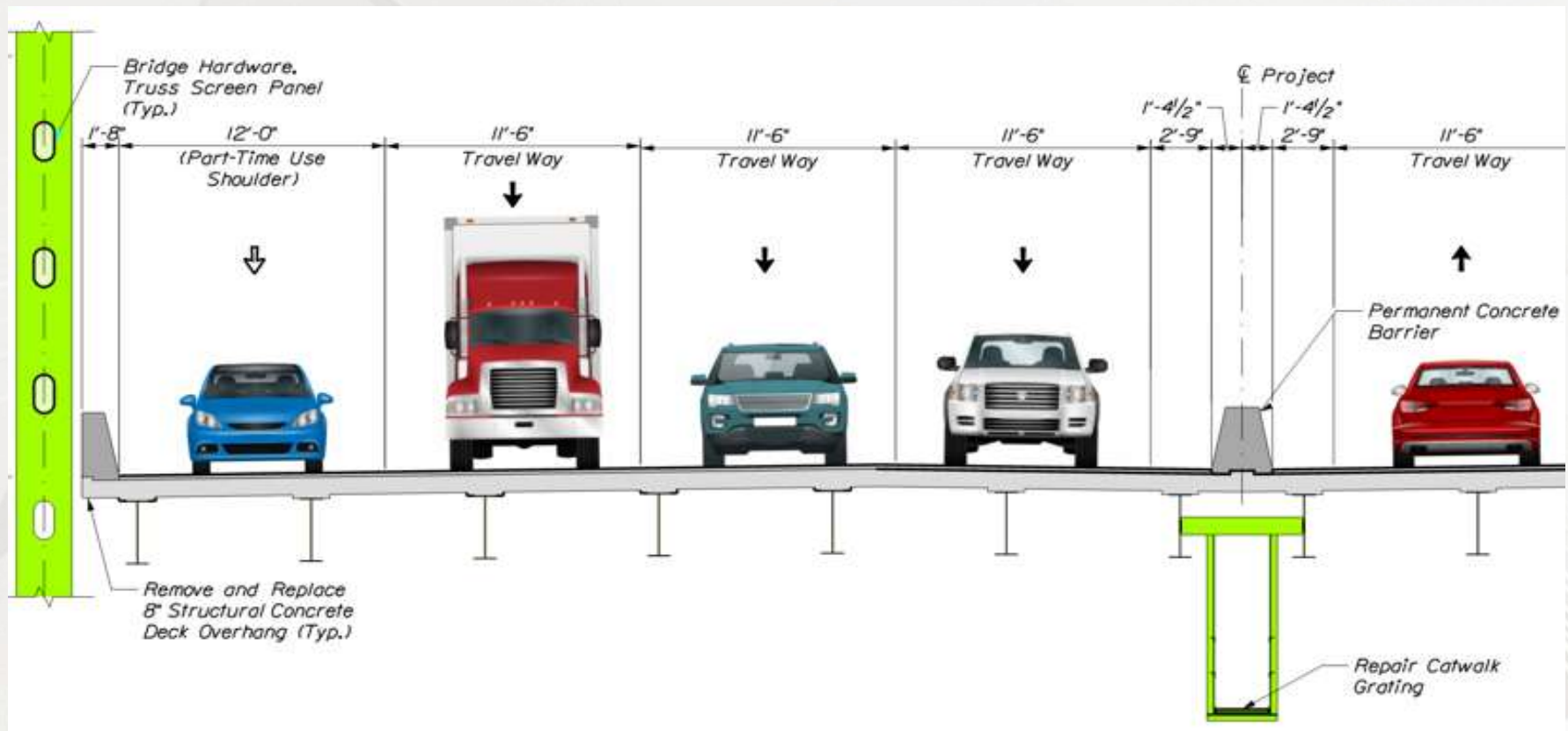
Concept Of Operations

- The Selected Alternative from the Feasibility Study was:

Dynamic Part Time Shoulder Use

- The Concept of Operations took the this alternative to the next level
- Allowed for vetting of proposed system to ensure future success
- Followed the Systems Engineering approach
- Expected to provide significant reductions in congestion, improvements to mobility, and enhance safety

Proposed Lane Configuration



Operations

- Dynamically turn on/off, with regular consistent times to start
- General expected times of operations for the system:
 - Northbound on Friday late afternoons
 - Northbound and Southbound on Saturday mid-days
 - Southbound on Sunday afternoons
- Northbound from Exit 5 in NH to Exit 3 in Maine
- Southbound from Exit 2 in Maine to Exit 5 in NH
- When the system is active we currently plan to close Exit 1 for increased safety

Safety

- The system will be managed and operated from the Transportation Management Centers (TMC) at NHDOT, MaineDOT, and MTA with live people
- Service Patrol will drive the project limits before it is activated
- 100% traffic camera coverage used only for monitoring current traffic conditions
- State Police is expected to be active and close by to assist
- Traffic sensors to alert TMC Operators of any changing traffic conditions

NH Exit 5 NB On Ramp to Exit 6 Off Ramp Existing



NH Exit 5 NB On Ramp to Exit 6 Off Ramp Proposed



Maine Exit 3 NB Off Ramp Existing



Maine Exit 3 NB Off Ramp Proposed



NH Exit 7 SB On Ramp Existing



NH Exit 7 SB On Ramp Proposed



Proposed Antenna Mounting Structure



Structure Location

NHDOT Bridge
Maintenance
Facility

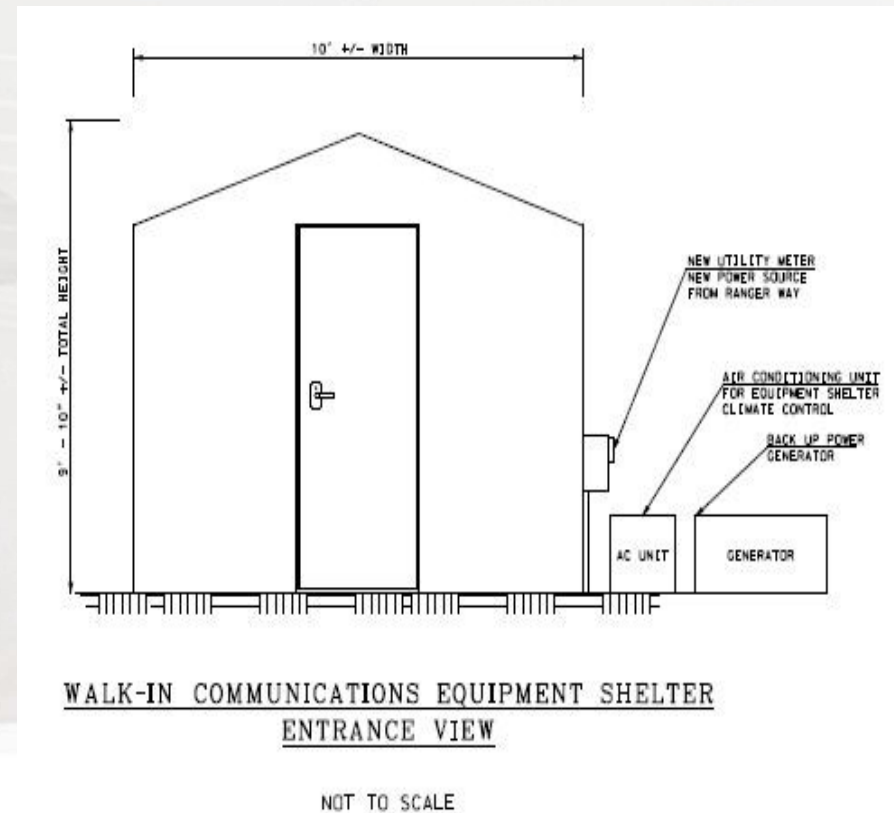
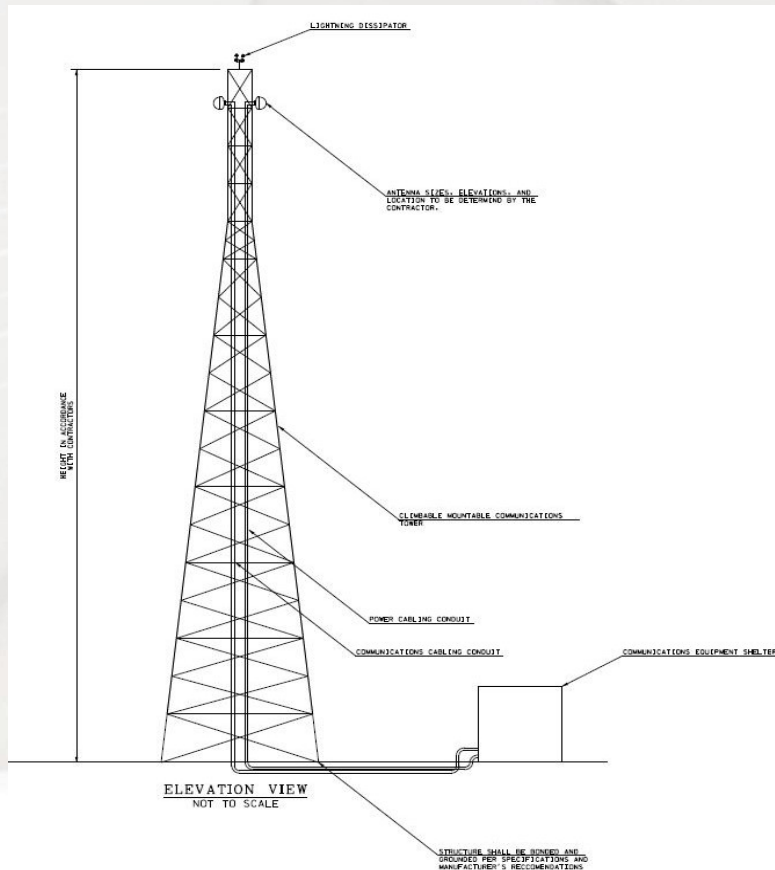


Proposed Antenna
Mounting
Structure and
Communications
Equipment Shelter

Structure Location



Proposed Antenna Mounting Structure and Communications Equipment Shelter



Design-Build

- 30% Conceptual Design Plans
- Technical Requirements
- Published Request for Proposals on 2/17/21
- Scheduled to Open Proposals on 4/30/21
- Selection of winning Proposal expected in June of 2021
- Governor & Council approval expected in August of 2021
- Project Completion expected by June of 2023

Questions or Comments?

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Project Website: <https://www.nh.gov/dot/projects/portsmouthyork16189b/index.htm>



THANK YOU

for joining us tonight!

